

# Nevada Board for the Regulation of Liquefied Petroleum Gas Post Office Box 338 • Carson City, Nevada 89702 Phone: (775) 687-4890 • Fax: (775) 687-3956

Web Site: www.lpg.nv.gov

# **Type 3B COC EXAM INFORMATION**

Section 1
Reference books allowed to be used:
None
Main areas of knowledge to be tested:
Properties of LP-Gas Appliance operation and repair
Number of questions:
Minimum of 50
Sample test questions:
Sample Question 1
How many BTU's per pound of propane liquid?
Sample Question 2
LP-Gas in its natural state is odorless:
A) True B) False
Sample Question 3
What is the maximum vapor pressure that is allowed to be delivered into the propane appliance supply connection.
<ul><li>A) 14 in. water column</li><li>B) 11 in. water column</li><li>C) 10 in. water column</li></ul>

D) 12 in. water column

# **Section 2**

Reference books allowed to be used:

All reference books are allowed, however, the exam is primarily based on the following:

NFPA 1192 (2005) (The board does NOT provide reference books)

Main areas of knowledge to be tested:

Appliance installation and repair Piping installation and sizing Appliance venting

Number of questions:

Minimum of 50

Sample test questions:

## **Sample Question 4**

You are installing a gas piping system on a recreational vehicle. What type of pipe fittings are approved for such a use?

- A) Cast Iron
- B) Steel
- C) Aluminum
- D) Polyethylene

## **Sample Question 5**

What is the maximum number of non permanently mounted cylinders that can be installed on a recreational vehicle?

- A) 4
- B) 2
- C) 3
- D) 6

## **Sample Question 6**

You are installing an LP-Gas furnace in a recreational vehicle. Can you terminate the flue gas outlet under the vehicle?

- A) Yes
- B) No

#### **QUALIFIED PERSON (QP) ENDORSEMENT**

All persons who will be designated as the qualified person for the licensee will also be required to successfully complete the QP exam.

Reference books allowed to be used:

All reference books are allowed, however, the exam is based on the following:

NRS 590.465 to 590.645 and NAC 590.100 to 590.687 (The board WILL provide reference books at the exam or they can be viewed from the Boards web site prior to the exam)

Main areas of knowledge to be tested:

Nevada statutes and regulations regarding LP-Gas

Number of questions:

Minimum of 25

Sample test questions:

#### **Sample Question 7**

If you are a business not engaged in the sale of LPG, but engaged in the sale and installation of gas-consuming appliances, piping, apparatuses, fixtures and connections; then what general class of license is required from the Board?

- A) Class 1
- B) Class 2
- C) Class 3
- D) Class 4

## **Sample Question 8**

Licensed firms must have insurance against liability for injury to persons and damage to property.

- A) True
- B) False

# **HELPFUL INFORMATION**

Approximate Properties of LP-Gases	Commercial Propane
Vapor pressure in psi (absolute pressure) at	
70° F	145
100° F	218
105° F	233
130° F	315
Specific gravity of liquid (water = 1) at 60° F	0.504
Initial boiling point at 14.7 psia, °F	-44
Weight per gallon of liquid at 60° F, lb	4.20
Specific heat of liquid, Btu/lb at 60° F	0.630
Cubic feet of vapor per gallon at 60° F	36.38
Cubic feet of vapor per pound at 60° F	8.66
Specific gravity of vapor (air = 1) at 60° F	1.50
Ignition temperature in air, ° F	920 - 1120
Maximum flame temperature in air, ° F	3595
Limits of flammability in air, percent of vapor in air-gas mixture	
Lower	2.15
Upper	9.60
Latent heat of vaporization at boiling point	
BTU per pound	184
BTU per gallon	773
Total heating values after vaporization	
BTU per cubic foot	2,488
BTU per pound	21,548
BTU per gallon	91,502

• Detailed instructions on pipe sizing can be located in NFPA 1192 (2005) Annex B

#### Answers to sample exam questions:

```
1) 21,548
               [NFPA 58 (2004) Table B.1.2 (a)]
2) A
               [Industry knowledge]
3) A
               [NFPA 1192 (2005) 5.2.21.1]
4) B
               [NFPA 1192 (2005) 5.3.2.5]
5) C
               [NFPA 1192 (2005) 5.2.1]
               [NFPA 1192 (2005) 5.5.2.2]
6) B
7) C
               [NRS 590.575]
8) A
               [NAC 590.270]
```